LETTER TO THE EDITOR

# Diagnosis: a simple bone cyst

I would agree with the recent letter to the editor from Dr Jeffery B. Price in the March/April 2018 issue of *General Dentistry* ("Horse or zebra") regarding simple bone cysts vs subchondral bone cysts. I agree, and the literature also suggests, that subchondral temporomandibular joint (TMJ) bone cysts are not uncommon. They are the result of excessive pressure in the TMJ and breakdown of the vascular components underlying the articular bone. Yes, they may need to have a diagnostic biopsy. In my practice, they are identified in many TMJ patients by radiographic appearance alone, especially teenage girls. I also see aggressive degenerative joint disease in younger girls on a routine basis.

I have a practice limited to TMJ and sleep disorders and see an average of 30-35 new patients referred for orofacial pain/TMJ disorders each month. The majority present with orthopedic pain and jaw dysfunction and mouth opening well below the normal range of 48-50 mm. I would estimate 50% of our new patients are below age 25 and have significant damage to the joints. I see many cases each month with subchondral cyst–like lesions and/or aggressive avascular necrosis–like destruction. Causes are rarely trauma; altered maxillomandibular growth and an underlying orthopedic malalignment are the underlying culprit in virtually all TMJ disorders.

The potential effects of selective serotonin reuptake inhibitors (which are prescribed in abundance to high school– and college-aged people) on bone signaling, I believe, play some role in the increasingly aggressive damage we are seeing at younger ages.

The literature on subchondral cysts attributes them to excessive pressure in the TMJ. This is typically due to the maladaptive growth of the maxilla and mandible as a result of airway problems early in growth. Dental equilibration of teeth also decreases joint support if vertical change is made to the molars. A classic "centric relation" jaw position will excessively load the TMJ and, in the presence of parafunction, will rapidly exceed physiologic pressures. Maxillary retrusive "nightguards" are also one of the most common "final straws" in TMJ disc/condylar displacement.

I have working relationships with many oral surgeons, and our need for surgical intervention within the first 6 months of orthopedic-based treatment of TMJ disorders is around 1%-2%. I do have consultations on cases prior to treatment start just to establish a relationship with the surgeon and have another set of "eyes" in prepubescent cases.

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## Response from the authors

We appreciate the interest of Dr Barnes in the March/April letter to the editor ("Horse or zebra") as well as our original article ("Simple bone cyst: rare incidental finding in the mandibular condyle by cone beam computed tomography," *General Dentistry*, January/February 2018). Dr Barnes has questioned some aspects of our article based on his personal opinion from the cases that routinely present at his practice. Although professional experience is important, it is fundamental that professionals have access to scientific publications that not only contribute to the updating of clinical practice but also improve the capacity to conduct clinical research, aiming at better patient care.

In our response to the previous letter, we clarified in detail the reasons why the subchondral cyst was not listed as a differential diagnosis of the simple bone cyst in the clinical case discussed in the article. We agree that, as a general rule, these 2 entities are listed as a differential diagnosis for each other. In an attentive reading of the clinical case in the January/February issue, colleagues may note that we mentioned that simple bone cysts are more prevalent in the second decade of life.[1-4] However, in the present case, the patient was 40 years old. After the age of 25 years, the occurrence of simple bone cysts is rarer, indicating the significance of the clinical case that was reported.[2,5] The article also pointed out that simple bone cysts correspond to 1% of all cysts that can affect the mandible, occurring with more prevalence in the symphyseal and mandibular body regions and more rarely in the condylar region.[1-3,6]

Although simple bone cysts can be identified in radiographic examinations, several studies have performed additional imaging tests, such as computed tomography (CT) and cone beam cone beam CT (CBCT), for a more precise evaluation of the lesion.[1-3,6-8] In the present case, the CBCT was not requested for the initial diagnosis of the cyst. The CBCT was requested for orthodontic purposes, and the cyst was an incidental finding. The diagnosis was favored by the radiologist's experience in evaluating the entire volume of the imaging examination

as well as his knowledge in identifying anatomical and pathologic alterations.[9] This finding demonstrates the importance of case reports, which provide clinical updates to the dental professional for the benefit of patients.

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## References

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RETRACTION

# Duplicate publication

It has recently come to our attention that an article published in *General Dentistry* in 2014 substantially duplicates an article published in the *Indian Journal of Dental Sciences* in 2012:

- Gupta H, Puri A, Kumar S. Diagnosis and management of cemental tear: a case report. *Gen Dent*. 2014;62(3):e12-e13.
- Kaur S, Kumar S, Mishra R, Gera A, Gupta H. Cemental tear: an un-usual [*sic*] case report. *Indian J Dent Sci*. 2012;4(Suppl):84-86.

We regret that this duplication of the original article was not discovered prior to publication. The article was submitted to *General Dentistry* in February 2013 by Hitesh Gupta, MDS, Abhinay Puri, MDS, and Saru Kumar, MDS. *General Dentistry* is committed to providing readers with original content, and Drs Gupta, Puri, and Kumar signed a copyright release declaring that the article was original, their own work, and not published previously or submitted for publication in any other journal. *General Dentistry* published the article in good faith that the authors' assertions were true. **Due to this misrepresentation, the Editor retracts the article.**